generation of a luminescent line. This luminescent line is focussed by a lens 32 on the face of the front end F of the optical fiber bundle 2. By 33 is denoted a printed-circuit board containing necessary electric circuits.

DEPR:
Now with reference to FIG. 8, 61 denotes an interface, 62 an X-Y deflection signal generator, 63 a luminescent signal generator, 64 a video amplifier, and 65 a deflection amplifier.

DEPR:
The control signal issued from the controller (6 in the diagram of FIG. 6) is delivered via the interface 61 to the X-Y deflection signal generator 62. In response thereof, the generator 62 issues X and Y deflection signals for the luminescent line and directs this signal toward the deflection amplifier 65. Simultaneously, the luminescent signal generator 63 issues a luminescent signal, which is amplified by the video amplifier 64 and applied to the electrode of the CRT 31. On the other hand, the output from the deflection amplifier 65 is applied to the deflection coil of the CRT 31. The generation of the luminescent line and the scanning with this luminescent line in the CRT 31 are readily materialized by the prior art as described above.

CLPR:
1. An image transmission apparatus, comprising an optical fiber bundle consisting of a number of randomly arranged optical fibers for transmitting an optical image formed on the front end face thereof to the rear end face thereof, photoelectric conversion means for dividing the optical image formed on said rear end face of said bundle into elements of light information assigned to the addresses of the geometric positions of individual optical fibers of said optical fiber bundle in said rear end face and converting said elements of light information into electric signals, first memory means for storing the relationship between the addresses of the geometric positions of said individual optical fibers in the front end face of said optical fiber bundle and the addresses of geometric positions of said individual optical fibers in the rear end face of said bundle, means for rearranging the electric signals supplied from said photoelectric conversion means in correspondence with said addresses of positions of said individual optical fibers in the rear end face of said optical fiber bundle, said rearranging means including second memory means for storing said electric signals at addresses read out of said first memory means corresponding to the addresses of the geometric positions of the individual optical fibers in said rear end face of said optical fiber bundle, and a display device for displaying two-dimensionally the rearranged electric signals read out of said second memory means thereby to reproduce the optical image formed in said front end face of said optical fiber bundle.

CLPR:
2. An image transmission apparatus according to claim 1 which further comprises comparator means for rating the magnitude of said rearranged electric signals, means for storing as data in said second memory means only those electric signals found by said comparator means to possess at least a specified magnitude, means responsive to detection by said comparator means of a defective electric signal not possessing said specified magnitude for reading out data stored at addresses in said second memory means corresponding to the addresses of positions surrounding the address at which said defective electric signal ought to have appeared on said display device, means for performing a predetermined processing on said data, and means for writing into said second memory means the data resulting from said processing as data representing said defective electric signal.

CCXR:
345/207

CCXR:
345/565

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Search Results -

Terms	Documents
(((345/$3)!.ccls.)) and (display)and (synchronizing)and ("deflection signal generator")and (CRT)	2

Database: US Patents Full-Text Database; US Pre-Grant Publication Full-Text Database; JPO Abstracts Database; EPO Abstracts Database; Derwent World Patents Index; IBM Technical Disclosure Bulletins

Refine Search: (((345/$3)!.ccls.)) and (display)and (synchronizing)and ("deflection signal generator")and (CRT)and ("voltage

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DB Name	Query	Hit Count	Set Name
USPT	(((345/$3)!.ccls.)) and (display)and (synchronizing)and ("deflection signal generator")and (CRT)	2	L8
USPT	(((345/$3)!.ccls.)) and (display)and (synchronizing)and ("deflection signal generator")	4	L7
USPT	(((345/$3).ccls.)) and (display)and (synchronizing)	2399	L6
USPT	((345/$3).ccls.) and (display)	24140	L5
USPT	l3 and (deflection)	0	L4
USPT	6198468	1	L3
USPT	l1 and (amplifier)	1	L2
USPT	6198468	1	L1

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L2: Entry 1 of 1 File: USPT Mar 6, 2001

DOCUMENT-IDENTIFIER: US 6198468 B1
TITLE: Apparatus for performing various on-screen display functions and methods for each function

DEPR:
Output buffer 62 receives and buffers the signal output from signal synthesizer 58 and outputs a composite video picture signal to a monitor (not shown) or a system requiring the composite video picture signal via an output node OUT. Output buffer 62 improves driving performance and may be implemented by a folded cascade operational amplifier which is suitable for driving large capacitance and has a dominant pole at an output node. The current of the output node OUT is about 2 mA considering the slew rate due to the output driving capacity of output buffer 62.

CLPR:
4. The apparatus of claim 3 wherein said output buffer is a folded cascade operational amplifier.

L8: Entry 1 of 2 File: USPT Oct 22, 1985

DOCUMENT-IDENTIFIER: US 4549175 A
TITLE: Image transmission apparatus using a random arrangement of optical fibers

ABPL:
Image display apparatus provided with an address converter aiding the apparatus in faithfully reproducing for display an optical image transmitted via an optical fiber bundle. The address converter is adapted to store information concerning the relation between the geometric address of the individual optical fibers at one end face of the optical fiber bundle and that at the other end face so as to permit conversion of one geometric address to the other. The small elements of an image transmitted through the individual optical fibers to the rear end of the bundle are rearranged in accordance with the geometric address of the fibers on the front end to complete an image conforming to the original transmitted image.

BSPR:
This invention relates to a display apparatus for displaying an optical image transmitted via a cable taking the form of an optical fiber bundle.

BSPR:
An object of this invention is to provide an optical image display apparatus, which, even when used with an optical fiber bundle having a random arrangement of fibers, i.e., the geometric positions of individual optical fibers thereof are not mutually conforming in the opposite end faces, enables an optical image which has been projected on the front end face and transferred to the rear end face to be displayed faithfully to the original optical image.

BSPR:
Another object of this invention is to provide an optical image display apparatus for displaying an optical image transmitted via an optical fiber bundle, which apparatus, when used with an optical fiber bundle containing, in the optical fibers making up the bundle, those sustaining chippings or fractures, compensates for those elements of optical information which ought to have been conveyed by those defective optical fibers and eliminates otherwise possible blots from the displayed optical image.

BSPR:
Still another object of this invention is to provide an optical image display apparatus provided with a readily manufacturable address converter capable of converting the geometric addresses of individual optical fibers making up an optical fiber bundle in one end face of the bundle into the geometric addresses thereof in the other end face.

BSPR:
A further object of this invention is to provide an optical image display apparatus which is adapted to receive the information of an optical image transmitted through an optical fiber bundle, store the information temporarily in a memory, read the information repeatedly out of the memory, and put it on a CRT display as a visible image.

BSPR:
Another further object of this invention is to provide an optical image

display apparatus for displaying an optical image transmitted via an optical fiber bundle, which apparatus can be used for the remote monitoring of phenomena occurring at places hardly accessible by human beings.

DEPR:
The address converter 15 in FIG. 2 is obtained by tabulating the relationship between the positions of the individual optical fibers on the front end F and the rear end R which has been ascertained as described above. By the use of this address converter 15, on the rear end R of the optical fiber bundle, the information obtained at the fiber position A is stored in the address (x2, y2) of the address conversion table, the information obtained at B is stored in the address (x3, y1) of the said table, and this procedure is repeated thereafter until the information obtained at I is stored in the address (x3, y2) of the table. Then, by reading out the memorized information in the order of the addresses, the optical image formed on the front end F is faithfully reproduced on the display.

DEPR:
Now, in FIG. 2, a further memory 16 which may be a refresh memory is a circuit for memorizing, in the order of scanning addresses, the information which has undergone address conversion in the address converter 15. A TV synchronizing signal generator 17 is a circuit for generating horizontal and vertical synchronizing signals when raster scanning is made on a CRT (cathode ray tube) 20. A read controller 18 is a circuit for reading out the information written in a refresh memory 16 and delivering it to a D/A converter 19 by keeping pace with the TV synchronizing signals from the circuit 17. The D/A converter 19 is a circuit for converting a train of digital picture-element signals brought in from the refresh memory 16 into color video signals and delivering the produced color video signals to the CRT 20.

DEPR:
Although the operation may be already apparent from the foregoing description, it will be described briefly below. The image of an object 21 to be monitored which is situated in a position such as the interior of a nuclear reactor which is not accessible by human beings is formed in the face of the front end F of the optical fiber bundle 2 with the aid of a lens 22, for example. The optical image is transmitted through the optical fiber bundle 2 to the photoelectric converter 10, there to be converted into electric signals under the control of the address generator 11. The electric signals are then converted into digital signals at the A/D converter 12. The digital signals are subsequently written in the data buffer memory 14 under the control of the write controller 13. In the address converter 15, the information which has been read out of the data buffer memory by read control means which is not shown in the diagram undergoes address conversion in accordance with the relationship found in advance between the positions of the individual optical fibers on the front end F and the rear end R of the optical fiber bundle 2 and then written in the refresh memory 16. The read controller 18 reads out the information from the refresh memory 16 under the control of the TV synchronizing signal generator 17. The information is converted into analog signals in the D/A converter 19. The analog signals are delivered to be displayed on the CRT 20. Consequently, the optical image of the object 21 under surveillance is displayed on the CRT 20 and watched.

DEPR:
At this time, the positions of light-showing optical fibers on the rear end R of the bundle 2 are picked up by the image pickup device 5. The addresses of these positions are supplied to the controller 6. At the controller 6, the address conversion table of the positions of the individual optical fibers of the optical fiber bundle 2 on the front end F and the rear end R is produced on the basis of the received data of addresses in the manner as described above. The monitor device 7 is a cathode ray tube display (CRT display) to be used for the purpose of monitoring.

DEPR:
Reference is now made to FIG. 7. A CRT (cathode ray tube) 31 is used for the

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USPT	(5880745)	3	L10
USPT	(((345/$3)!.ccls.)) and (display)and (synchronizing)and ("deflection signal generator")and (CRT)and ("voltage generator")	0	L9
USPT	(((345/$3)!.ccls.)) and (display)and (synchronizing)and ("deflection signal generator")and (CRT)	2	L8
USPT	(((345/$3)!.ccls.)) and (display)and (synchronizing)and ("deflection signal generator")	4	L7
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USPT	l3 and (deflection)	0	L4
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